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| 10/727,447      | 12/03/2003  | Bentley D. Frink     | 5544-002            | 7091             |

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WILLIAM J. MASON  
MACCORD MASON PLLC  
POST OFFICE BOX 1489  
WRIGHTSVILLE BEACH, NC 28480

EXAMINER

BEAULIEU, YONEL

ART UNIT PAPER NUMBER

3661

DATE MAILED: 07/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/727,447

Applicant(s)

FRINK, BENTLEY D.

Examiner

Yonel Beaulieu

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Specification***

The abstract of the disclosure is objected to because the language is not narrative and takes the form of a claim (at least claim 1). Correction is required. See MPEP § 608.01(b).

***Claim Rejections - 35 USC § 112***

Claims 18 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 18, the phrase "enough memory" (line 4) is vague and indefinite because it is not readily understood as to how much is enough.

Claim 19 is necessarily rejected as being dependent upon the rejection of claim 18 above.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1 – 6, 8, 9, and 13 – 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Foote (US 2001/0038342 A1).

Regarding claims 1, 9, 16, 18, and 19, Foote teaches an aircraft (104) having memory loaded with geo-location data (using item 114; ¶0051) corresponding to restricted airspace boundaries and an autonomous means (navigation system 132) for rerouting the aircraft outside of the airspace boundaries as the aircraft approaches to within a predetermined distance of the airspace (¶¶0041 and 0045 at least). A communications relay system using unmanned aircraft and comprising a ground based wireless communication station (see fig. 8 at least); first and second unmanned aircrafts (figs. 6 and 10) for flying a predetermined pattern within wireless communication range and for receiving ground based wireless communications station commands (¶0068 at least). Foote further teaches data logger for remote data transfer to an unmanned aerial vehicle equipped with an onboard transceiver and memory (¶¶0037 and 0065 at least), a controller having memory to log data (¶0046).

Regarding claims 2 - 4, Foote's data being retrievable over the Internet (¶¶0008, 0017, 0042, 0067, 0069; figs. 5, 8, 9, 11) and a government controlled airspace (fig. 6 at least).

Regarding claims 5 and 6, Foote's computer being onboard the aircraft (fig. 3) or ground based (fig. 4).

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Regarding claim 8, Foote further teaches destination coordinates into a waypoint set (¶¶ 0019 and 0045 at least).

Regarding claims 13 and 14, Foote's aircraft is a passenger aircraft or an unmanned aerial vehicle (figs. 1, 8, 10; ¶0016 at least).

Regarding claim 15, Foote further provides for radio controlled aircraft (Foote uses RF communication as noted in ¶¶0046 and 0066 at least).

Regarding claim 17, Foote's first and second unmanned aircrafts utilize respective antennas for communicating with the ground (as illustrated in fig. 10).

Regarding claim 20, Foote further teaches the use of spread spectrum radio frequency (¶¶0043 and 0044 at least).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Foote (US 2001/0038342 A1) in view of Aratow et al. (US 6,199,008B1)

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As discussed above, Foote teaches all of the limitations except for the generation of a NOTAM.

However, Aratow teaches, in the same field of endeavor of aircraft technology, generating a NOTAM (figs. 3B, 6, and 8 at least; col. 4, line 51 – col. 5, line 14; col. 7, line 48 – col. 8, line 8; and col. 8, line 28 – col. 9, line 15).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Foote's teaching by generating a NOTAM as evidenced by Aratow in order to enhance safe flying procedures.

Claims 10 – 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foote ('0038342) as applied to claim 1 (directly or indirectly).

As discussed above, Foote teaches all of the limitations except for the generation of expiration date for the waypoint.

However, Foote does teach necessary software to carry out the claimed invention. It would have been obvious to one of ordinary skill in the art at the time of the invention Foote's teaching is at least functionally equivalent to the claimed invention and including an expiration date for the waypoint set would enhance security.

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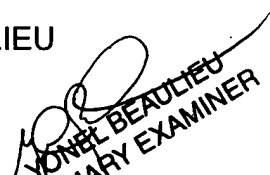
**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yonel Beaulieu whose telephone number is (571) 272-6955. The examiner can normally be reached on M-W 9-3; F 9-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas BLACK can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Y. BEAULIEU  
AU 3661

  
YONEL BEAULIEU  
PRIMARY EXAMINER